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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/643,600	08/18/2003	David Schenck	5682-001	5069

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EXAMINER	
AGARWAL, MANUJ	

ART UNIT	PAPER NUMBER
3764	

DATE MAILED: 02/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/643,600	SCHENCK, DAVID	
	Examiner	Art Unit	
	Manuj Agarwal	3764	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *8/18/03* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date 7-16-04
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Drawings

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "50" has been used to designate both the pressure sensitive switch and transcutaneous nerve stimulation electrodes. Furthermore, it is unclear what structure reference character 50 is pointing to.

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the pressure activated switch must be shown or the feature(s) canceled from claims 5,18. No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

The specification is objected to under 35 U.S.C. 112, first paragraph for failing to provide an adequate written description. It fails to detail the criticality of crushed lava

rock to the heat pad. What properties does this rock possess that makes it suitable to retain heat? It is unclear why such a filler material was chosen. Furthermore, why is the less than 10mm size critical to the invention? What advantages would such a small size impart?

In addition, it is unclear how the pressure activated switch functions and how is its deactivated when the belt is not worn by the user. Where is this switch, and where how does this circuit operate?

Claim Objections

Claims 1,10,12 are objected to because of the following informalities: The word "conformable" is misspelled. Appropriate correction is required.

Claim 7 is objected to because it unclear what is meant by "said heat transfer pad inner and outer coverings." The heat retention pad of claim 1 did not have an inner and outer covering, nor did it state that the pad was within the coverings of the belt.

Claims 4,17 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. These claims merely recite functional language. Further structural limitations are not provided. It is unclear what the scope of the claims are.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the

> art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 4,5,17,18 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Regarding claims 4,17, the controller 48 is said to selectively energize the heating element 38 and vibrators 44. The specification does not state that the said vibrators were independently activatable in a predetermined sequence. The predetermined sequence, as well as a means for selecting it is not disclosed.

Regarding claims 5,17, there is inadequate support in the specification regarding the structure and operation of the pressure sensitive switch.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 1 recites the limitation "said heat retention pad" in part c. There is insufficient antecedent basis for this limitation in the claim. A heat retention pad was not claimed earlier in claim 1. Rather, a conformable pad of heat retention pad was claimed.

Claim 7 recites the limitation "said heat transfer pad." There is insufficient antecedent basis for this limitation in the claim. A heat retention pad was claimed earlier in claim 1.

Claims 12,15 recites the limitation "said transcutaneous nerve stimulation electrodes." There is insufficient antecedent basis for this limitation in the claim. A

transcutaneous nerve stimulator was stated earlier in claim 12. An electrode means was not included in the claim language.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1,3,5 are rejected under 35 U.S.C. 102(b) as being anticipated by Chatman, Jr. et al (US 5,378,225).

Regarding claim 1, Chatman Jr. et al discloses a back support device for heating and vibrating a user's back comprising: a belt having an inner and outer covering, as well as a conformable pad 22 that absorbs, retains and radiates heat from a heating element 18,20. The pad's inner side is adjacent to the inner side of the belt, or the said inner covering of the belt. The heating elements are shown in fig 5 to have a periphery smaller than the said pad periphery. A back support plate 30, as well as a plurality of vibrators 40 is provided. Fig 7 shows that the vibrators are positioned beyond the heating element periphery but within said pad periphery. A battery is in circuit with the heating element and vibrators (col 5 lines 4-6). A controller, switch 28 is coupled to the power source. When switched on, current is supplied to energize the said heating elements and said vibrators.

Regarding claim 3, the belt of Chatman, Jr. et al. is shown in figs 1,5 to have a center region with a greater width than that of its ends.

Regarding claim 5, switch 28 is activated by applying pressure via a finger. It is on the belt and in circuit with the said battery. The switch is further capable of being deactivated when said belt is not worn by the user.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 2,4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chatman, Jr. et al.

Regarding claim 2, Chatman, Jr. et al. discloses the claimed invention except for openings in the support plate in which the vibrators were positioned. It would have been obvious to one having ordinary skill in the art at the time the invention was made to position the vibrators into openings, since it has been held that rearranging parts of an invention involves only routine skill in the art. *In re Japikse*, 86 USPQ 70.

Regarding claim 4, Chatman, Jr. et al. lacks vibrators that are independently activatable in a predetermined sequence by a controller. Rather, he discloses a switch 28 that can selectively energize the independent heating elements (col. 4, lines 28-36). Based on the positioning of the controlling switch, a variety of predetermined sequences may be controlled. It would have been obvious to one of ordinary skill at the time the invention was made to provide the belt of Chatman, Jr. et with a similar means of

independent energizing the said vibrators in order to provide a varied and user-controlled massaging effect.

Claims 6,9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chatman Jr. et al. in view of Goldstein et al. (US 5,531,777)

Regarding claim 6, Chatman Jr. et al. discloses the claimed invention except for heat retention material being crushed lava rock. Goldstein discloses a device that comprises a pad that is filled with temperature retaining filler, such as ground minerals of rocks. (col. 2, lines 20-24). Although the actual mineral composition of the rocks is not disclosed, its purpose is identical to the claimed invention. Crushed lava rock would also ground, and will assumingly provide the same utility. It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide a ground crushed lava rock material to the pad of Chatman Jr. et al, as taught by Goldstein et al. in order to supplement its heat retentive properties. Furthermore, it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416.

Regarding claim 9, the Chatman, Jr. et al. reference discloses the claimed invention except for heat retention material having a particle size of up to 10 mm. The heat retention rock of the Goldstein et al. reference ranges in a preferred range of 0.05 to 1.0 cm, or 0.5 to 10 mm. (col. 2 lines 24-25). Such a small size would permit uniform heating of this heat retention material when a heat source is applied. It would have been obvious to one of ordinary skill at the time the invention was made to provide the belt of

Chatman, Jr. et al. with a heat retention material that is up to 10mm in size as taught by Goldstein et al. in order to permit its more uniform and effective heating when exposed to a heat source. Furthermore size has been ruled an obvious matter of design choice, since such a change in size is generally recognized as being within the level of ordinary skill in the art. *In re Rose*, 105 USPQ 237 (CCPA 1955).

Claims 7,8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chatman Jr. et al. in view of Adamec (US 5,948,010)

Chatman, Jr. et al. lacks a heat transfer pad that is formed into discrete sections filled with heat retention material that are parallel to a longitudinal axis.

Adamec discloses a therapeutic heat application belt that comprises a heat transfer pad 14 divided into a plurality of discrete sections 18 by vertically extending seams 20. Sections 18 are filled with natural filler material 26 having a particulate or granular character (col 3 lines 61-63). This heated in a microwave, retains its heat, and then radiates it when the device belt is applied to a user's body. Tubular sections 22 are divided by seems 24. These sections are filled with an identical heat retention material and run parallel to the longitudinal axis of the said belt.

Regarding both claims, the divisions were made in the belt of Adamec in order to maintain a uniform positioning of filler material 26 throughout the pad portion (col 3 lines 63-65). It would have been obvious to divide the belt of Chatman, Jr. et al. into discrete sections as taught by Adamec in order to provide a uniform distribution of heat retentive material throughout the pad portion, thus providing a uniform heating effect.

Claims 10-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chatman Jr. et al. in view of Adamec further in view of Bastyr et al. (US 5,487,759).

Regarding claims 10,12, see above rejections of claim 1 and 7. The belt of Chatman Jr. et al. in view of Adamec lacks electrodes. Bastyr et al. discloses an apparatus that constitutes a belt comprising electrodes 44,46 for introducing electrical stimulation (see fig 3). These electrodes are inherently capable of stimulating nerves transcutaneously. The introduction of such electrodes to the belt of Chatman Jr. et al. in view of Adamec would provide the same therapeutic benefits to the nerves of the back and waist area. It would have been obvious to one of ordinary skill at the time the invention was made to provide the belt of Chatman Jr. et al. in view of Adamec with electrodes as taught by Bastyr et al. in order to electrically stimulate the underlying nerve tissue.

Regarding claims 11,15, the device of Bastyr et al. comprises a pair of electrode pads 44,46. Controller 14 is shown in fig 4a to comprise buttons 72,74,76,78 for the control of the intensity of the current sent to the electrodes, as well as buttons 62,66 for control of the rate, or frequency of current delivered to the electrodes. Such features allow for variation in the location, as well as the type of therapy performed by the actions of the electrodes. The electrodes are joined to the controller via electrical cables 32,34. It would have been obvious to one of ordinary skill at the time the invention was made to provide the belt of Chatman Jr. et al. in view of Adamec with multiple electrodes with variable intensities and frequencies in order to provide a variable therapeutic effect.

Regarding claim 13, the heat transfer pad 22 of Chatman, Jr. et al. has an outer periphery that is larger than the periphery of the heating element 18,20 as shown in fig 5.

Regarding claim 14, vibrators 40 of Chatman et al. are shown in fig 7 to be positioned beyond the heating element periphery, but within the periphery of the pad.

Regarding claims 16,17,18,19,20 see rejection of claims 3,4,5,8,9 respectively.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

1. US 2,949,108. Vecchio. Therapeutic Vibrator Pad. A belt with a pad, heating and vibrating elements.

2. US 4,702,235. Hong. Therapeutic Inflatable Lumbar Brace Having a Heater.

3. US 5,062,414. Grim. Simplified Orthopaedic Back Support. A belt with a conformable pad, a heater, battery and rheostat.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Manuj Agarwal whose telephone number is (571) 272-4368. The examiner can normally be reached on Mon to Fri 9:00 AM 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen K. Cronin can be reached on (571) 272-4536. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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